





**PAGER** Version 10

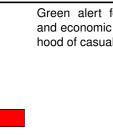
Created: 1 week, 3 days after earthquake

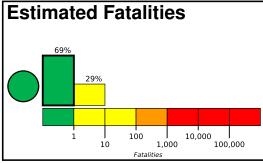
# M 4.4, 8 km E of Phala, Hawaii

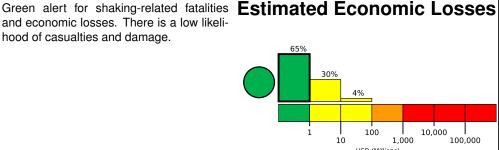
Origin Time: 2022-01-04 00:13:25 UTC (Mon 14:13:25 local) Location: 19.2261° N 155.4030° W Depth: 35.0 km

**Estimated Fatalities** 69% 10,000 1,000

and economic losses. There is a low likelihood of casualties and damage.







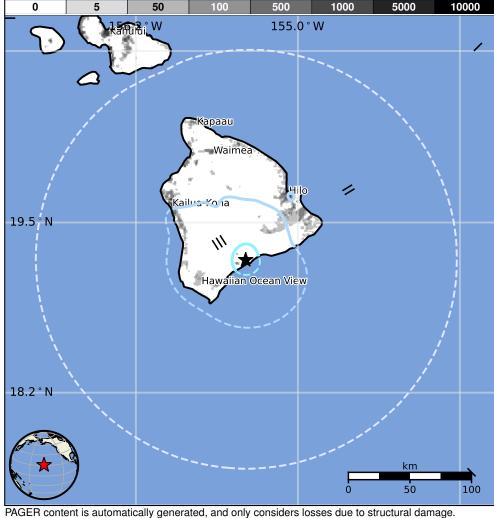
**Estimated Population Exposed to Earthquake Shaking** 

ESTIMATED   EXPOSURE	POPULATION (k=x1000)	131k*	223k	1k	0	0	0	0	0	0
ESTIMATED MERCALLI	MODIFIED INTENSITY	ı	11-111	IV	V	VI	VII	VIII	IX	X+
PERCEIVED	SHAKING	Not felt	Weak	Light	Moderate	Strong	Very Strong	Severe	Violent	Extreme
POTENTIAL	Resistant Structures	None	None	None	V. Light	Light	Moderate	Mod./Heavy	Heavy	V. Heavy
DAMAGE	Vulnerable Structures	None	None	None	Light	Moderate	Mod./Heavy	Heavy	V. Heavy	V. Heavy

<sup>\*</sup>Estimated exposure only includes population within the map area.

# Population Exposure

population per 1 sq. km from Landscan **Structures** 



Overall, the population in this region resides in structures that are resistant to earthquake shaking, though vulnerable structures exist. The predominant vulnerable building types are unreinforced brick masonry and reinforced masonry construction.

### **Historical Earthquakes**

Date	Dist.	Mag.	Max	Shaking
(UTC)	(km)		MMI(#)	Deaths
1973-04-26	86	6.2	VII(74k)	0
2006-10-15	93	6.7	VIII(15k)	0
1975-11-29	46	7.2	IX(30k)	2

Recent earthquakes in this area have caused secondary hazards such as landslides that might have contributed to losses.

## Selected City Exposure

from GeoNames.org

MMI	City	Population
IV	Pahala	1k
Ш	Hawaiian Ocean View	4k
Ш	Volcano	3k
Ш	Honalo	2k
Ш	Kealakekua	2k
Ш	Kahaluu-Keauhou	4k
Ш	Kailua-Kona	12k
Ш	Hilo	43k
II	Kahului	26k
I	Kihei	21k
I	Wailuku	15k

bold cities appear on map.

(k = x1000)

Limitations of input data, shaking estimates, and loss models may add uncertainty. https://earthquake.usgs.gov/earthquakes/eventpage/hv72856332#pager